

Teaching Activities for

# *Carolina's Story*

Sea Turtles Get Sick Too!

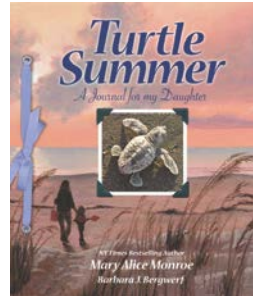
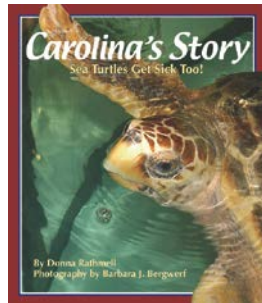
# *Turtle Summer*

*A Journal for my Daughter*

PDF Page

- 2     **Questions to Ask Before & after reading the book**
- What do children already know?
  - After reading: food for thought and comprehension question
- 10    **Language Arts**
- Developing a word wall
  - Putting it all together
  - Suggested Vocabulary List & Worksheet
  - Silly Sentence Structure Activity—Sea Turtle Life Cycle
  - Sequencing Sentence Strips
  - Word Searches
- 20    **Science**
- Classifying Animals
  - Sea Turtle Life Cycle Journal
  - Turtle Adaptations
  - Label the Sea Turtle
  - Venn Diagram
- 26    **Math**
- Loggerhead Nesting Data for 2006
  - State Specific Nesting Statistic Charts for FL, GA, SC, & NC
- 30    **Research & Geography**
- 31    **Character-related: Citizenship**
- 32    **Sea Turtle Bingo**

Activities are for use as intended at home, in the classroom, and story-times.  
Copyright © 2007 by Arbordale Publishing, formerly Sylvan Dell Publishing.



### Questions to ask children before reading the books:

- What do you think the books are about by looking at the covers? (or one or two of the inside photographs or illustrations) *Sometimes it is easy to tell from the cover, other times it is not.*
- Does the title tell you what the book is about?
- Is there a subtitle to give more information?

### What do children already know?

Young children are naturally inquisitive and are sponges for information. The whole purpose of this activity is to help children verify the information they know (or think they know) and to get them thinking “beyond the box” about sea turtles. The children should write down their “concepts” (or adults for them if the children are not yet writing) on the provided chart found on the next page.

Use the questions to get children thinking about what they already know. Feel free to add more questions or thoughts according to the child(ren) involved.

### What do I know? Activity Chart

Write down what you think you know before reading the book. If you verify the information while reading the book, check “yes.” If you are wrong about something, mark “no” and cross it off. Write the correct information in another section, below. Make a note of how you verify the information.

<u>What do I think I know?</u>	<u>Yes</u>	<u>No</u>	<u>Verified:</u>
Where do sea turtles live?			Text Illustration Info in FCM Other:
What do sea turtles look like (draw a picture)			Text Illustration Info in FCM Other:
Can sea turtles pull their heads into their shell?			Text Illustration Info in FCM Other:
How do sea turtles protect themselves?			Text Illustration Info in FCM Other:
What happens to the turtles’ shells as they get bigger?			Text Illustration Info in FCM Other:
What do sea turtles breathe?			Text Illustration Info in FCM Other:

<u>What do I think I know?</u>	<u>Yes</u>	<u>No</u>	<u>Verified:</u>
How many types of sea turtles are there?			Text Illustration Info in FCM Other:
What type of animal class is a sea turtle? (Mammal, bird, reptile)			Text Illustration Info in FCM Other:
Where do sea turtles lay their eggs?			Text Illustration Info in FCM Other:
How many eggs does a female sea turtle lay at a time?			Text Illustration Info in FCM Other:
How do sea turtles find their way back to the ocean?			Text Illustration Info in FCM Other:
What do loggerhead sea turtles eat?			Text Illustration Info in FCM Other:
What can hurt or make sea turtles sick?			Text Illustration Info in FCM Other:
How are sea turtles different than land turtles?			Text Illustration Info in FCM Other:

Use this chart for any other thoughts the children might have:

<u>What do I think I know?</u>	<u>Yes</u>	<u>No</u>	<u>Verified:</u>
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:
			Text Illustration Info in FCM Other:

### After reading the books – writing prompts & thinking it through

- ? Did the covers “tell” you what the books were about?
- ? If not, how do the illustrations or photographs on the front relate to the stories?
- 🎨 Draw your own covers
- ? Can you think of other titles for the books?
- ? Write a different ending to the stories

### Re-read the book looking for more information

Go back and re-read the books studying each page carefully.

- What, if any, facts are mentioned in the text? Do the facts verify any of the information in the chart?
- What can be seen or inferred from the photographs that is not or are not mentioned in the text?
- What, if anything, can be inferred from the text?
- Periodically pause during second readings and ask the child(ren) if they remember what happens next.

### Fun things to look for

Look for the photo of Carolina in ***Turtle Summer***. Where is she and what is she doing? What other sea turtles are with her and why?

What other things do the two books have in common? *While the two books were written by different authors, the photographer is the same. In fact, a careful review of the two books will reveal photos of several of the same people.*

# Carolina's Story

## Sea Turtles Get Sick Too!

### Food for thought

What do you think made Carolina sick? *The "flu" that Carolina had is really called "Debilitated Sea Turtle Syndrome" and is found in juvenile (early teens) sea turtles up and down the east coast. By the time the turtles wash up on the beach, they are entirely dehydrated, covered with parasites, worms & barnacles and are lethargic. Scientists don't yet know what is causing this.*

What are some other reasons that a sea turtle might wash up on the beach or need to go to a sea turtle hospital? *Boat strikes and shark bites are other common occurrences. In addition, in the northern states, some turtles don't migrate south in time and get caught in the cold water. Some turtles may have mistakenly eaten pieces of plastic bags or balloons instead of jellyfish.*

Why do you think people are helping sick sea turtles and why is it important? *Sea turtles are endangered animals. Every turtle that can be helped may help the sea turtles to survive.*

### Science and Technology

What type of technology was used in helping Carolina to get better?

What medical procedures did Carolina or some of the other turtles on the last page have that were the same as you or someone you know?

### History and Nature of Science

If Carolina had washed up on the beach 200 years ago, would people have been able to help her? Why or why not?

Do you think turtles got sick or hurt 200 years ago? Why or why not?

### Science in personal and social perspectives: changes in environments

If more turtles are sick now, can you think of any changes in the environment that may be causing it?

Is there anything you can do to help turtles to not get sick?

### Language Arts, Writing prompts

What would you do if you found a sick sea turtle on the beach?

Write or draw a story as though you were a sick sea turtle in a hospital? How did you get there? Describe your day.

### Comprehension Questions

What sickness did Carolina have?

How did the volunteers and staff help her to get better?

How did people know she was getting better?

What happened to Carolina when she was well again?

How long was Carolina in the hospital?



# *Turtle Summer*

*A Journal for my Daughter*

## **Food for thought:**

What are some of the challenges that a baby sea turtle faces when first attempting to make it to the ocean?

List at least three ways that people can help hatchlings get to the water.

Why is it important not to touch or pick up the hatchlings and carry them to the water?

Do you think that it is easier for that baby turtle once it makes it to the ocean? Why or why not?

Why do you think sea turtle hospitals are around sea turtle nesting areas?

## **Think it through or look it up:**

What does it mean for an animal to be an endangered species?

What sea turtles are considered endangered?

How can you help sea turtles from where you live?

Where do sea turtles nest? Locate areas on a map.

Tracking: go to [www.seaturtles.org](http://www.seaturtles.org) to locate sea turtle satellite tracking information and maps

## **Comprehension Questions:**

What did Lovie and her mother do over the summer?

What were some of the things they did to help the sea turtles?

What were some of the other things they did or saw?

How did the turtle team members know where the mother turtle's nest was?

What did Lovie think the mother's tracks looked like?

What did the turtle team members do to keep people away from the nest?

About how long does it take for the eggs to incubate?

Where did Lovie's mother work? What does she do?

What did Lovie and her mother wonder about as they waited for the hatchlings?

What is the first sign that a nest is hatching?

How do the hatchlings know to find the water? What do they follow?

Why is it important to not carry the hatchlings to the water?

How many years will pass before a surviving female hatchling returns to the same beach to lay her eggs?



### **What do children already know activity?**

- Do the children have any more questions about the sea turtles? If so, write them down on the chart.
- Identify whether the information was verified and how.
- If the concept is correct, make a note of how the information was confirmed (illustration, in text, in fun fact notes)
- If the concept was not correct, what IS the correct information – with above confirmation notes as above.
- If the concept was neither confirmed nor denied, look the information up in a reliable source and note where it was confirmed.
- Wrap it all up by adding notes with new information that they learned either through the reading or the research while looking up something else.

## **Language Arts**

### **Developing a vocabulary “word wall”**

If using the book as a way to introduce sea turtles, this is also a great way to introduce subject-related vocabulary words. If you don't have the time (or the inclination) to develop the “word wall” by playing the Vocabulary Game (below), we have provided a vocabulary list for you on the next page.

Vocabulary words for the “word wall” may be written on index cards, on a poster board, or on a chalk board. If writing on poster board or chalk board, you might want to sort into noun, verbs, etc. right away to save a step later.

### **Vocabulary**

This activity is designed to get children' thinking of vocabulary words which will then be used as the beginning vocabulary list for a science lesson.

Select an illustration and give children a specific length of time (five minutes?) to write down all the words the children can think of about the particular subject. *If you do not have classroom sets of the book, it is helpful to project an illustration on a white board. Check Web site ([www.ArbordalePublishing.com](http://www.ArbordalePublishing.com)) for book “previews” that may be used for this purpose.*

Their word list should include anything and everything that comes to mind, including nouns, verbs and adjectives. At the end of the time period, have each child take turns reading a word from his/her list. If anyone else has the word, they do nothing. If however, they are the only one with the word, they should circle it. While reading the list, one person should write the word on a flashcard or large index card and post it on a bulletin board or wall.

At the end, the child with the most words circled “wins.” And you have a start to your science vocabulary list. *Note: if children use an incorrect word, this is a good time to explain the proper word or the proper usage.*

### **Putting it all together**

The following activities may be done all together or over a period of several days.

- Continue to add words to the vocabulary list as children think of them.
- Sort vocabulary words into nouns, verbs, adjectives, etc. and write what it is on the back of the card. When the cards are turned over, all you will see is “noun,” etc. *(These can then be used to create bizarre sentences a la “Mad Libs™.”)*
- Now sort the vocabulary words into more specific categories. For example, nouns can be divided into plants, animals, rocks, minerals, etc. They can be divided into living/non-living, or into habitat-related words.
- Have children create sentences using their vocabulary words. Each sentence could be written on a separate slip of paper.
- Have children (individually or in small groups) sort and put sentences into informative paragraphs or a story.
- Edit and re-write paragraphs into one informative paper or a story.

# Carolina's Story

Sea Turtles Get Sick Too!

## Turtle Summer

*A Journal for my Daughter*

### Suggested Vocabulary List

<u>nouns</u>	<u>verbs</u>	<u>adjectives</u>
sea turtle	sick	sad
sea turtle hospital	cleaned	hungry
blood samples	draw blood	scared
turtle flu	eat	tank-like
biologist	feed	red
carapace	feel	concave
plastron	scrape	
barnacles	cry	
antibiotics	get better	
shots	dig	
x-rays	lay	
sores	hatch	
eggs	eat	
hatchlings	crawl	
reptiles	swim	
fish, crabs, jellyfish	dig	
bright light	move	
moon	protect	
stars	guard	
imprint		
flippers		
turtle team		
sand		
beach		
loggerhead		
tracks		
nest makers		
high tide line		
bucket		
boil		
instinct		
horizon		

# Carolina's Story

Sea Turtles Get Sick Too!

## Vocabulary Worksheet

Use the word bank to match the word to its definition.

1. \_\_\_\_\_ A class of animals that have dry, scaly skin; are cold blooded; breathe air; and most lay soft-shelled eggs.
2. \_\_\_\_\_ The bottom part of a turtle's shell.
3. \_\_\_\_\_ A doctor who takes care of animals.
4. \_\_\_\_\_ A type of machine that can see inside bodies.
5. \_\_\_\_\_ The top part of a turtle's shell.

Word Bank:

Carapace      Plastron      Veterinarian      X-ray      Reptile

More advanced words for older children:

- Blood Transfusion      giving healthy blood to an animal with sick blood.
- Biologist      A person/scientist who works with and studies living things.
- IV (Intravenous)      A tube put into an animal or human to give liquids or medicines.

# Turtle Summer

*A Journal for my Daughter*

## Sea Turtle Life Cycle

This is a fun activity that develops both an understanding of sentence structure and the science subject. Use words from the “word wall” to fill in the blanks. After completing silly sentences for fun, have children try to fill in the proper word.

The mother \_\_\_\_\_ noun \_\_\_\_\_ verb s onto the \_\_\_\_\_ noun.

She uses her back \_\_\_\_\_ noun s to \_\_\_\_\_ verb a \_\_\_\_\_ noun.

The loggerhead lays between 80 and 150 \_\_\_\_\_ noun in a \_\_\_\_\_ noun that looks like an upside down light bulb.

The \_\_\_\_\_ noun s look like ping-pong balls and are soft and leathery.

The female loggerhead covers the nest and \_\_\_\_\_ verb s back across the \_\_\_\_\_ noun to the ocean, never to see the hatchlings.

About two months later the eggs will \_\_\_\_\_ verb and the \_\_\_\_\_ noun s will climb out of the nest.

The \_\_\_\_\_ noun s will “walk the walk” to the ocean.

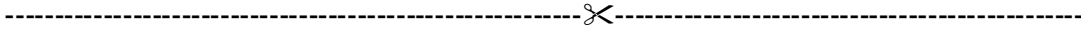
They find the ocean by \_\_\_\_\_ noun, walking towards the brightest \_\_\_\_\_ noun (usually the moon or stars).

**Carolina's Story**  
Sequence Sentence Strips

Preparation: Copy this page onto a card stock. Cut into sentence strips, laminate if desired, and place in a "center." Have children put the events in order. Children may work alone or in small groups. Cards are in order but should be mixed up when cut apart.



**The turtle rescue team picked up the sick sea turtle from the beach.**



**Volunteers scraped barnacles off Carolina's shell.**



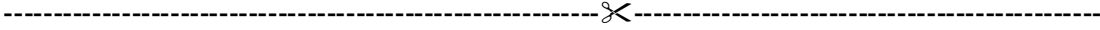
**Dr. Tom examined her to see what was wrong.**



**Biologist Kelly gave her a shot.**



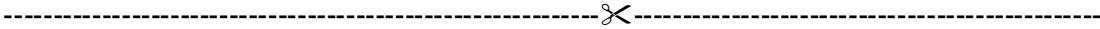
**Carolina tried to swim away or splashed people.**



**Carolina liked to watch other turtles and people.**



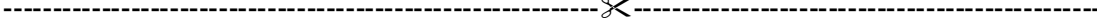
**People took her to the beach close to where she washed up.**



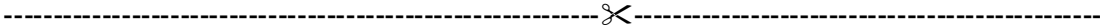
**Carolina felt the water wash over her and swam away.**

**Turtle Summer**  
Sequence Sentence Strips

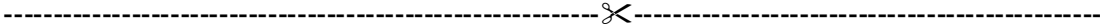
Preparation: Copy this page onto a card stock. Cut into sentence strips, laminate if desired, and place in a "center." Have children put the events in order. Children may work alone or in small groups. Cards are in order but should be mixed up when cut apart.



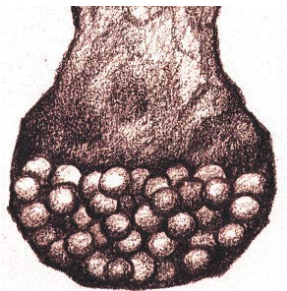
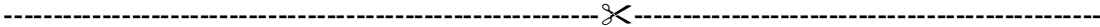
**Mother turtle climbs out of water onto beach.**



**She digs a nest and lays eggs.**



**She swims back out to sea but will come back to lay three more nests that summer.**



**Eggs stay in the under-sand nest about two months.**





**The first sign of nest hatching is a concave dent in sand.**



**Hatchlings poke through the sand.**



**Hatchlings walk “the walk” across the beach.**



**Hatchlings swim away when they get to the water.**



**After about 30 years, the females that survive return to same area to lay their nests.**

# Carolina's Story

Sea Turtles Get Sick Too!

## Turtle Summer

*A Journal for my Daughter*

### WORD SEARCH

Find the hidden words. Even non-reading children can try to match letters to letters to find the words! Easy – words go up to down or left to right.

For older children, identify the coordinates of the first letter in each word (number, letter).

	A	B	C	D	E	F	G	H	I	J
1	C	A	R	T	O	B	O	A	T	S
2	A	T	E	A	H	I	C	A	P	E
3	R	E	P	T	I	L	E	C	A	P
4	A	G	E	T	R	Y	A	N	T	L
5	P	G	I	L	L	A	N	Y	N	A
6	A	S	K	E	V	E	R	Y	E	S
7	C	B	I	O	L	O	G	I	S	T
8	E	A	S	Y	F	O	R	U	T	R
9	S	O	M	A	N	Y	T	O	G	O
10	S	E	A	T	U	R	T	L	E	N

BIOLOGIST  
OCEAN

CARAPACE  
EGGS

PLASTRON  
NEST

SEA TURTLE  
REPTILE

For fun, see how many other words can be found in five minutes.



## Turtle Word Search

Find the hidden words. Even non-reading children can try to match letters to letters to find the words! Easy – words go up to down or left to right.



For older children, identify the coordinates of the first letter in each word (number, letter).



	A	B	C	D	E	F	G	H	I	J	K
1	T	U	H	P	L	A	S	T	R	O	N
2	S	E	A	T	U	R	T	L	E	M	E
3	C	O	M	U	S	T	A	B	L	E	D
4	A	D	Q	R	Y	I	P		U	S	H
5	R	E	P	T	I	L	E	C	A	C	X
6	A	V	J	L	W	Z	E	B	R	U	S
7	P	S	H	E	L	L	H	I	P	T	K
8	A	E	T	O	R	T	O	I	S	E	Y
9	C	O	L	D	B	L	O	O	D	E	D
10	E	T	E	R	R	A	P	I	N	F	G

SEA TURTLE  
CARAPACE  
REPTILE

TERRAPIN  
PLASTRON  
COLD BLOODED

TURTLE  
SCUTE  
TORTOISE  
SHELL

For use with  
*Carolina's Story & Turtle Summer* (sea turtles)  
*Turtles in my Sandbox* (terrapins)  
*Tudley Didn't Know* (painted turtle)

## Science

### Classifying animals

Animals can be sorted into different groups. What are some attributes you might use to sort animals?

- By habitat
- Do they have arms, legs, flippers, or wings?
- How many legs do they have?
- Do they have stripes or patterns on their bodies?
- Do they walk, swim, jump, or fly?

Some things are very easy for scientists to sort or classify, other things are not so easy. The first question they will ask is whether the item is (or was) alive or not. Both plants and animals are living things. If the item in question is an animal, scientists will then ask other questions:

- Does it have hair or fur, feathers, or dry skin or scales?
- Does it breathe air through lungs or water through gills?
- Are the babies born alive or from eggs?
- Does the baby eat milk from its mother?
- Is warm or cold-blooded?
- How many body parts does the animal have?

By answering these (and other) questions, scientists can sort or classify the animals into “classes” such as mammal, bird, reptile, fish, amphibian, or insect.

Information on the five classes of **vertebrates** (animals with backbones) is given in the table below.

The chart may also be used to complete a Venn diagram.

**Animal Classification Chart at Class Level (Vertebrates)**

	Breaths air or water	Warm or cold-blooded	Lays eggs or live birth	Hair, scales, or feathers
Mammals	Air	Warm	Mostly live	Hair
Birds	Air	Warm	Eggs	Feathers
Fish	Water	Cold	Varies	Scales
<b>Reptiles</b>	<b>Air</b>	<b>Cold</b>	<b>Mostly eggs</b>	<b>Scales</b>
Amphibians	Water, then air	Cold	Eggs in water to larva	Moist skin that is naked & smooth
Sea Turtles	Air	Cold	Eggs	Scutes/scales
Humans	Air	Warm	Live	hair

## Sea Turtle Life Cycle Journal

Have children draw a picture to define the vocabulary word or concept

**What does an adult loggerhead look like?**

**Turtle tracks that show where the mother crawled up on the beach**

**What she uses to dig her nest**

**A sea turtle nest looks like**

**Hatchlings**

**Bright light that they follow by instinct**

## Turtle Adaptations

Adaptations help animals to live in their habitat, to get food and water, to protect themselves from predators, to survive weather, and even to help them make their homes. Turtles live all over the world in a wide variety of habitats; in the ocean, in or around ponds and water, or on land.

All turtles have shells that are part of their bodies. Turtles' shells grow with them, like our bones grow with us. A turtle can never leave its shell. The top of the shell is called a *carapace* and the bottom is called *plastron*. The carapace is covered with "scales" or *scutes*.

### All turtle shells are not all the same

A box turtle can completely pull its head and legs into its shell. A hinge on the plastron completely closes. The shape of the shell is deep, like a helmet. Most other turtles (painted, terrapins, etc.) can pull their heads and legs into their shells but the shells don't completely close. Some turtles have soft, leathery shells for swimming. Snapping turtles



have very small plastrons, making their shells lighter for swimming. They are better protected from the top than they are from the bottom.

Sea turtles have big, flat shells and cannot pull their head or flippers into their shells at all. The flat shape helps it to swim quickly through the water.

### The legs are different too



Turtles that can swim and crawl onto land have webbed feet with claws. The webs help push through the water, but the claws help them on land.

Tortoises have stumpy feet to help walk on different types of land.

Sea turtles have flippers for swimming through the water.

### Beaks

Turtles don't have mouths like we do, they have beaks. If they eat meat, their beaks have hooks that help them tear meat apart. The beaks are VERY strong and can break through other animals' shells. Turtles that eat plants have wider, flatter beaks.

### Turtles are reptiles

Reptiles breathe air, have dry, scaly or leathery skin or shells, most are born from eggs (some snakes give live birth), and are cold-blooded (they get warmth from their environment).

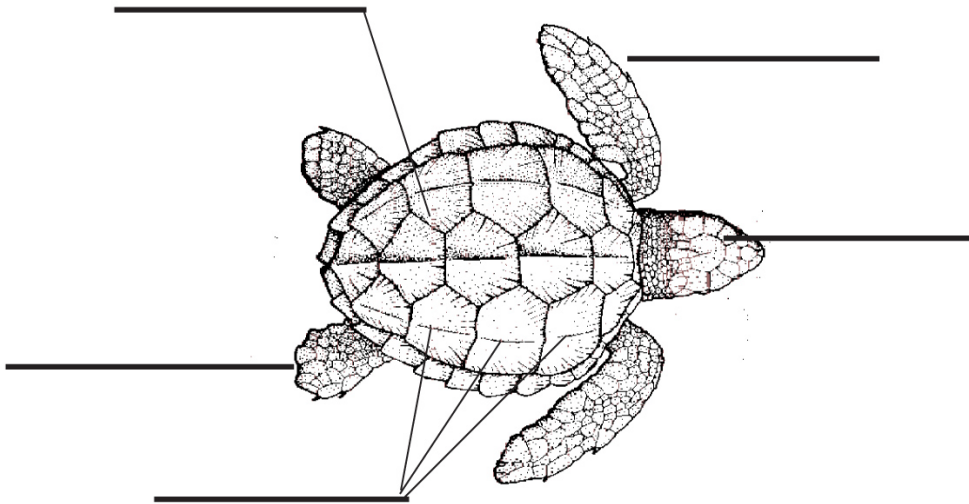
Because they are cold-blooded, turtles like to bask (or lay out) in the sun. Sea turtles can't bask but they do swim to the surface to breathe.

Turtles have to protect themselves from cold weather. Sea turtles will migrate to warmer water. Other water turtles, like painted turtles or terrapins, will bury themselves in the mud in the bottom of the pond or bay for the winter. They continue to absorb oxygen through their skin.



Turtles lay eggs. The female turtle will dig a nest to lay her eggs. Even sea turtles crawl onto the beach to lay her eggs. Once they lay their eggs, they never see or know the hatchlings.

**Identify the Sea Turtle Body Parts**



**Word Bank:**

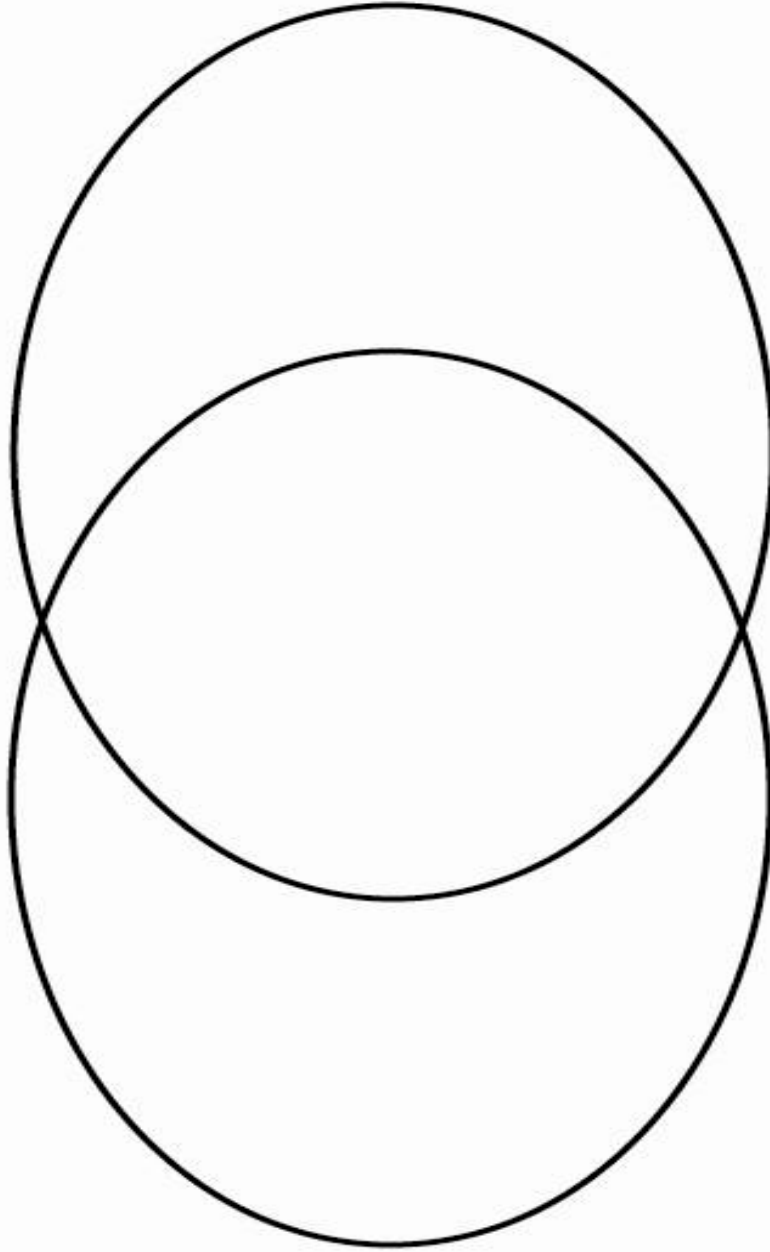
head  
front flipper  
rear flipper  
carapace  
scutes



# ***Carolina's Story & Turtle Summer***

What do the animal classes of reptiles and mammals have in common?

What do they breathe? What is their skin like? How are babies born?



## Math

Some scientists believe that only one out of every one thousand sea turtle hatchlings lives to become an adult. In fact, they even estimate that only one out of 100 hatchlings survives the first 24 hours! If those figures are correct how many nests of 100 eggs will it take to get one adult loggerhead?

### Loggerhead nesting data for 2006

	loggerhead nests	sea turtle strandings
FL	49,776	1757
GA	1,396	130
SC	2,568	90
NC	<u>758</u>	<u>275</u>
total		

- How many total loggerhead nests were there in the four states?
- What was the average number of eggs per nest for all four states?
- If each nest has the average number of eggs, how many eggs were laid?
- If each female loggerhead laid an average of four nests, how many egg-laying females were there?
- Which state had the most sea-turtle strandings?
- How many sea turtles stranded in the four states during 2006?

### Loggerhead Nesting Data by state (FL, GA, SC, NC)

State statistic information provided on the following several pages are broken down by various beaches or islands. Thanks to the following people and organizations for sharing the nesting data:

Beth Brost, Biological Scientist II, Marine Turtle Research  
Florida Fish & Wildlife Conservation Commission

[http://research.myfwc.com/features/view\\_article.asp?id=10690](http://research.myfwc.com/features/view_article.asp?id=10690)

[http://research.myfwc.com/engine/download\\_redirection\\_process.asp?file=Loggerhead Nesting Data 1990-2006.pdf&objid=2411&dltype=article](http://research.myfwc.com/engine/download_redirection_process.asp?file=Loggerhead+Nesting+Data+1990-2006.pdf&objid=2411&dltype=article)

Mark Dodd, Georgia Sea Turtle Program Coordinator  
Georgia Department of Natural Resources

DuBose Griffin, Sea Turtle Coordinator  
SC Department of Natural Resources

December 2006 Loggerheadlines:

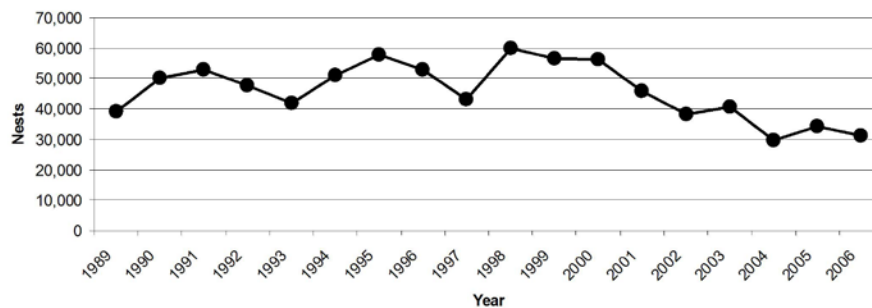
<http://www.dnr.sc.gov/seaturtle/Loggerheadlines/lhdec06.pdf>

## Florida Loggerhead Nesting Statistics 1990 to 2006

FWC Fish and Wildlife Research Institute  
Statewide Nesting Beach Survey Program  
Loggerhead (*Caretta caretta*) Nesting Data, 1990-2006

County	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Nassau	85	116	82	33	110	60	105	76	112	148	105	89	61	142	53	89	97
Duval	43	40	29	30	78	54	69	63	72	119	80	87	55	88	41	67	103
St. Johns	363	156	211	135	300	265	204	212	360	274	283	272	313	334	213	208	205
Flagler	343	190	178	184	300	270	227	175	270	237	336	278	338	353	237	212	220
Volusia	1,766	1,719	1,457	1,757	2,131	2,044	1,889	1,273	2,078	2,263	2,208	1,679	1,859	1,710	1,112	1,375	1,350
Brevard	27,673	28,279	25,555	20,600	28,029	31,653	28,742	25,221	34,596	34,134	32,910	26,198	23,492	22,994	15,678	19,339	18,089
Indian River	2,425	3,401	2,786	2,792	3,044	3,468	3,645	3,371	4,491	3,591	5,104	3,380	3,648	3,772	2,488	3,781	3,272
St. Lucie	4,911	5,146	4,981	4,325	4,934	5,812	6,197	4,587	6,601	5,864	6,586	5,650	5,051	4,404	4,138	4,073	3,204
Martin	10,626	10,798	8,095	9,376	11,258	11,606	9,304	7,894	10,174	9,380	10,322	8,207	6,850	6,927	5,130	5,822	5,532
Palm Beach	12,394	11,919	14,357	9,424	12,606	14,123	15,284	11,592	14,056	13,183	14,187	13,757	13,032	12,963	10,759	10,791	11,196
Broward	2,283	2,036	2,230	2,267	2,180	2,567	2,902	2,216	2,643	2,584	2,674	2,321	2,070	2,335	1,826	1,819	1,740
Miami-Dade	390	439	367	392	445	470	448	415	545	516	516	496	374	489	289	301	302
Monroe	180	132	110	110	171	421	300	331	349	370	347	270	99	301	219	77	56
Collier	407	605	560	556	1,142	1,060	1,148	1,104	1,352	1,260	1,357	978	736	1,147	644	408	553
Lee	478	559	448	487	691	700	686	594	865	851	935	660	560	617	572	503	512
Charlotte	356	483	492	538	622	1,072	1,000	1,051	1,389	1,009	1,090	775	656	597	603	494	385
Sarasota	1,451	1,976	2,344	1,916	2,543	3,502	3,064	3,438	4,146	3,316	3,562	3,211	2,584	2,814	2,063	2,130	1,960
Manatee	179	180	179	203	228	354	303	306	398	436	357	306	180	298	176	173	191
Hillsborough	14	16	22	31	31	56	37	72	71	54	30	15	29	45	26	31	21
Pinellas	144	175	142	105	138	229	223	181	233	172	279	195	227	284	154	156	165
Franklin	48	55	95	212	311	384	364	417	550	486	401	315	212	333	328	214	221
Gulf	26	139	139	211	281	325	247	463	356	519	378	340	326	268	265	228	238
Bay	47	53	80	63	84	106	115	103	141	94	129	99	80	105	71	110	80
Walton			3	14	7	44	48	67	46	72	72	36	40	44	25	27	24
Okaloosa	26	29	20	28	49	25	41	25	25	28	42	13	7	26	18	15	21
Santa Rosa						2	14	10	11	13	15	4	4	9	8	3	3
Escambia	27	11	14	37	40	42	62	48	58	73	81	50	22	47	37	23	36
Yearly Statewide Totals	66,685	68,652	64,976	55,826	71,753	80,714	76,668	65,305	85,988	81,046	84,386	69,681	62,905	63,446	47,173	52,469	49,776

Core Florida Index Nests for Loggerheads



- Which counties had the highest/smallest number of loggerhead nests in 2006?
- Looking at the data for all years provided, which year had the most nests?
- There are 286 kilometers of beaches monitored for sea turtle nests in Florida. What is the average number of nests per kilometer for 2006?
- The average loggerhead clutch size (number of eggs per nest) for Florida is 112. On average, how many eggs were laid in Florida during 2006?
- How many might survive to adulthood?

## Georgia Loggerhead Nesting Statistics 2005 & 2006

	2005	2006
Tybee Island	4	10
Little Tybee/Myrtle Island	6	7
Wassaw Island	104	141
Ossabaw Island	213	199
St. Catherines Island	113	121
Blackbeard Island	197	227
Sapelo Island	103	82
Little St.Simons Island	35	58
Sea Island	51	65
St. Simons Island	2	1
Jekyll Island	118	137
Little Cumberland Island	21	23
Cumberland Island	<u>232</u>	<u>325</u>
Statewide Totals		

- Which island in Georgia had the highest number of loggerhead nests in 2006?
- Which island had the smallest number of nests?
- Looking at the data for two years, if you were going to visit an island with the hopes of seeing a sea-turtle nest, which islands might you decide to visit and why?
- There were approximately 150 (154.2) kilometers of beaches monitored for sea turtle nests in Georgia during 2006. What was the average number of nests per kilometer for that year?
- How does that compare to the nest density for Florida, above?

## South Carolina Loggerhead Nesting Statistics for 2005 & 2006

Projects	2005	2006
Myrtle Beach S. P.	3	0
Huntington Beach S.P.	5	14
S.C.U.T.E.	62	80
South Island	122	102
Cape Island	826	1,027
Lighthouse Island	232	195
Deweese Island	9	21
Sullivans/Isle of Palms	56	15
Folly Beach	37	51
Kiawah Island	154	201
Seabrook Island	51	64
Botany Bay Isl & Plan	219	214
Edingsville Beach	73	90
Edisto Beach S. P.	94	71
Edisto Beach	88	50
Harbor Island	39	28
Hunting Island	90	62
Fripp Island	40	31
Pritchards Island	71	66
Hilton Head Island	163	186
Daufuskie	N/D	~25
<b>TOTAL</b>	<b>2,434</b>	<b>2,568</b>

- Which monitored SC beach had the highest number of loggerhead nests in 2006? 2005?
- Which had the smallest number of nests?
- Looking at the data for two years, if you were going to visit a beach with the hopes of seeing a sea-turtle nest, which might you decide to visit and why?
- The average number of eggs per nest in SC is 126. Using that number, how many eggs could have been laid in SC during 2006?

## Research & Geography

Sea Turtle tracking maps and actual satellite tracking data may be downloaded from the SeaTurtle.org, teacher section -- <http://www.seaturtle.org/tracking/teachers/>.

Sea turtles return to the same area as they were born. Research and locate where turtles nest in the US or in the world.

Do all types of sea turtles nest in the same area or different areas?

Find a sea turtle stranding center: <http://www.seaturtle.org/strand/contact.shtml>

### ***Carolina's Story & Turtle Summer***

Where do loggerhead sea turtles nest in the US?

Where are sea-turtle stranding centers located?



## Character

According to Character Counts (<http://www.charactercounts.org/defsix.htm>), one of the six pillars of character is:

### **Citizenship**

- Do your share to make your school and community a better place
- Cooperate with others
- Get involved in community affairs
- Stay informed; vote
- Be a good neighbor
- Obey laws and rules
- Respect authority
- Protect the environment

Do you think the people who volunteer at sea turtle hospitals or turtle teams are being good citizens? Why or why not?

Why do you think it is important for people to help the sea turtles?

What can you do to help protect and care for sea turtles even if you don't live close to the ocean?